Textbook Alignment to the Utah Core

Instructional Materials Evaluation Criteria (name and grade of the core document used to align)

__Pre-Algebra_____

Title ___Holt Pre-Algebra © 2008_____ ISBN# _Student Edition: H934680; Teacher Edition: H934672_____

Publisher: __Holt, Rinehart and Winston_____ _

Name of Person conducting alignment: ___**Eisemann Communication Inc.**_____

Overall percentage of coverage of the Utah State Core Curriculum:___93_____%

Standard I: Students will understand and perform operations with rational numbers, including negative rational numbers.
Percentage of coverage for Standard I:90%

Objectives	Indicators	If covered, appropriate page #'s		Comments on coverage
1.1: Understand, compute fluently and make reasonable estimates with rational numbers.	**a.** Compute fluently, using all four operations, with integers and explain why common algorithms work.	SE	33, 60-71, 74-82, 84-95, 104-106, 108-109, 112-134, 136-144, 145, 146-153, 157-159, 539-559, 562-581, 589-605, 608-631, 643-653, 656-667, 670-676, 685, 734-735, 736-737, 750-751, 752-753, 754-755, 756-757, 758-759,781,784, 787, 791	Excellent coverage of computation, explanation of common algorithms is addressed indirectly.
		TE	13, 18	

Standard I: Students will understand and perform operations with rational numbers, including negative rational numbers. (Cont.)

Objectives	Indicators	If covered, appropriate page #'s		Comments on coverage
1.1: Understand, compute fluently and make reasonable estimates with rational numbers.(Cont.)	**b.** Compute fluently, using all four operations, with rational numbers, including negative fractions and decimals, and explain why common algorithms work	SE	3-7, 13-32, 59-71, 74 -82, 84-95, 104-106, 108-109, 111,112-134, 136-144, 146-153, 157-159, 163, 165, 170-171, 184,-192, 208-209, 213, 221, 222-226, 228-231, 234-243,251-253,276-277, 279, 280-299,302-327, 330-331, 339, 341, 342-359, 368-389, 399, 400-431, 445-454, 462-485, 497-551, 514-527, 539-559, 562-581, 587, 589-605, 608-631, 643-653, 656-667, 670-676, 685, 716-719, 732-733, 734-735, 736-737, 738-739,742-743, 744-745, 746-747, 748-749, 750-751,752-753, 754-755, 756-757, 758-759, 771-778, 781, 784, 787, 790, 791, 792, 793, 794, 795	Excellent coverage of computation, explanation of common algorithms is addressed indirectly
		TE	117, 118, 121, 124, 126, 128, 131, 132	
	c. Check the reasonableness of results using estimation.	SE	420-421, 451-454, 458-459, 747,748	Citations are direct estimations. Students are expected to check all answers throughout text for reasonableness.

Standard I: Students will understand and perform operations with rational numbers, including negative rational numbers. (cont.)			
Objectives	**Indicators**	**If covered, appropriate page #'s**	**Comments on coverage**
1.2 Analyze relationships among rational numbers, including negative rational numbers, and operations involving these numbers.	a. Compare and order rational numbers in various forms, including scientific notation (positive and negative exponents), with and without a number line.	SE 341, 780	Pre-course skill. Rational comparison and ordering fully covered in Review Skills Bank. Scientific notation covered, but not comparing and ordering in scientific notation.
	b. Predict the effect of operation with fractions, decimals, percents, and integers as an increase or a decrease of the original value.	Not covered	Prediction of operation effect not covered. .
	c. Recognize and use the identity properties of addition and multiplication, and the distributive property of multiplication over addition.	SE 29-31, 651-652, 670-672, 779,	Identity properties pre-course skill. Fully covered in Reviews Skills Bank. Distributive property adequately covered.
	d. Recognize and use the inverse relationships of addition and subtraction, multiplication and division, and perfect squares and their roots.	SE 13-31, 74-81, 136-143, 146-153, 356-359, 405-413, 416-433, 496-537, 563, 660-663, 732, 734-735, 736-737, 744, 743-747, 750-751, 757	Excellent coverage.

Standard I: Students will understand and perform operations with rational numbers, including negative rational numbers. (Cont.)			
Objectives	**Indicators**	**If covered, appropriate page #'s**	**Comments on coverage**
1.3 Solve problems involving rational numbers using addition, subtraction, multiplication, and division.	a. Recognize the absolute value of a rational number as its distance from zero.	SE 60-63, 781	Adequate coverage.
	b. Evaluate numerical expressions, including those with whole number exponents and absolute values using the order of operations.	SE 4-7, 60-71, 84-87, 92-95, 118-134, 589, 612, 621-625, 732, 734-735,	Excellent coverage.
	c. Solve problems involving rational numbers, percents and proportions.	SE 7, 10-12, 15-17,19-22, 25-27, 31, 33, 35-37, 41, 48-49, 62-63, 65-67,71, 75-77, 80-81, 83, 89-91, 95, 99-101, 115-134, 137-143, 147-153, 162-163, 185-187, 195, 284, 288, 293, 297, 309-311, 313-315, 317-319, 321-323, 327, 330-331, 342-354, 356-359, 361, 368-379, 383-389, 396, 400-403, 405-408, 410-413, 415-419, 424-435, 452-454, 456-459, 461, 481, 485, 486-487, 494, 498-501, 503-505, 509-511, 513, 516-518, 522, 527-529, 536, 543-544, 557-559, 561, 564-566, 569-571, 573-575, 577-579, 586, 592-594, 597-599, 607, 620, 625, 632, 645-647, 676-677, 699, 701, 733, 734, 737, 744-745, 746-747, 749, 750-751, 752-753, 758	Excellent coverage.

Standard II: Students will use the language of algebra to analyze and represent relationships, including real-life relationships.
Percentage of coverage for Standard II:98%

Objectives	Indicators	If covered, appropriate page #'s		Comments on coverage
2.1 Generalize and express patterns using algebraic expressions**.**	**a.** Compare representations of a relation using tables, graphs, algebraic symbols and mathematical rules.	SE	34-47, 179-183, 196- 199, 281-284, 540-554, 556-559, 562-577, 590-605, 608-625, 628- 631, 733-734, 738-739, 746, 753, 754-755, 758, 787	Good coverage.
	b. Describe simple patterns using a mathematical rule or algebraic expression.	SE	590-605,608-625, 754	Adequate coverage.
	c. Create and extend simple numeric and visual patterns.	SE	400-403 590-605, 690-699, 746-747, 758	Good coverage.
2.2 Evaluate, simplify and solve algebraic expressions, equations and inequalities.	**a.** Simplify algebraic expressions using the properties of algebra.	SE	22, 84-87, 112-116, 650-653, 732, 756-757	Good coverage.
	b. Solve single-variable linear equations and inequalities, including those that must be simplified on one side or those with variables on both sides of an equation.	SE	13-27, 74-81, 136-143, 498-505, 507-511, 514-518, 732, 734, 736, 750-751	Excellent coverage.
2.3 Represent relationships using graphs, tables and other models.	**a.** Identify approximate rational coordinates when given the graph of a point on a rectangular coordinate system.	SE TE:	38, 40, 546, 548-549 545	Adequate coverage.
	b. Graph ordered pairs of rational numbers on a rectangular coordinate system.	SE	38-41,280-284, 545-553, 613-625, 732, 742, 752, 754-755	Excellent coverage.

Standard II: Students will use the language of algebra to analyze and represent relationships, including real-life relationships. (Cont.)			
Objectives	**Indicators**	**If covered, appropriate page #'s**	**Comments on coverage**
2.3 Represent relationships using graphs, tables and other models. (Cont.)	**c.** Graph linear equations using ordered pairs or tables.	SE 38-41, 540-543, 613-616, 732, 752-753	Excellent coverage.
	d. Model real-world problems using graphs, tables, equations, manipulative's, and pictures and identify extraneous information.	SE 43-46, 72-73, 137-139, 179-183, 196-207, 451, 563, 502, 506, 657, 661, 732-733, 738-739	Good coverage, although identifying extraneous information is not covered.
2.4 Develop an understanding of proportionality.	**a.** Compare ratios to determine if they are equivalent.	SE 342-345, 744	Good coverage.
	b. Compare ratios using the unit rate.	SE 346-349, 744,	Good coverage.
	c. Recognize percents as a ratio based on 100.	SE 400-402, 746	Good coverage.
	d. Recognize decimals as ratios based on powers of ten.	SE 113-114, 400-402, 746	Good coverage.
	e. Recognize slope of a line as the ratio of the vertical change to the horizontal change in a line.	SE 545-549, 752	Good coverage.
	f. Graph proportional relationships and identify the unit rate as the slope of the related line.	SE 545-549, 562-566, 628-630, 753, 755	Good coverage under direct and inverse variations. Slope is not explicitly refered to as unit rate. However, slope is defined as the "steepness of the line" and also as a "ratio."
2.5 Solve a wide variety of problems using ratios and proportional reasoning.	**a.** Set up and solve problems involving proportional reasoning using variables.	SE 356-359, 372-375, 376-379, 382-385, 405-408, 410-413, 562-566, 744, 745, 746, 753	Excellent coverage.
	b. Solve percent problems including problems involving discounts, interest, taxes, tips, and percent increase or decrease.	SE 372, 405-408,410-413, 416-419, 424-431, 425, 746-747	Excellent coverage.
	c. Solve ratio and rate problems using informal methods.	SE 346-349, 744	Adequate coverage.

Standard III: Students will recognize, describe, and identify geometric shapes, and solve problems using spatial and logical reasoning, applications of geometric principles, and modeling.
Percentage of coverage for Standard III: 100%

Objectives	Indicators	If covered, appropriate page #'s	Comments on coverage
3.1 Analyze characteristics and properties of two- and three-dimensional shapes.	**a.** Identify similar figures based on proportionality.	SE 362, 364, 368-371, 372-379, 744	Good coverage.
	b. Find missing lengths of similar plane figures, including inaccessible lengths, using proportions.	SE 365, 368-371, 372-375, 386-387, 744 TE: 362B	Good coverage.
	c. Classify two- and three-dimensional objects according to their defining characteristics.	SE 239-244, 245-247, 300-301, 307, 312, 324	Adequate coverage.

Standard IV: Students will understand and apply measurement tools and formulas.
Percentage of coverage for Standard IV: 98%

Objectives	Indicators	If covered, appropriate page #'s	Comments on coverage
4.1 Apply the properties of proportionality to different units of measure.	**a.** Convert units of measure within the same system.	SE 350-354, 744, 790, 791	Good coverage.
	b. Create and interpret scale drawings and approximate distance on maps using properties of similarity.	SE 372-375, 745	Good coverage of scale drawings, one problem on page 374 involving maps.
	c. Solve problems using scale factors.	SE 362-365, 368-371, 372-375, 376-379, 380-384, 382-385, 744-745	Excellent coverage.
	d. Create and interpret scale drawings.	SE 372-375, 744-745	Good coverage.

Standard IV: Students will understand and apply measurement tools and formulas. (Cont.)			
Objectives	**Indicators**	**If covered, appropriate page #'s**	**Comments on coverage**
4.2 Derive and understand formulas for surface areas and volumes of three dimensional shapes.	**a.** Develop formulas for and calculate surface area and volume of right prisms and cylinders using appropriate units.	SE 307-311, 316-319, 743 TE 307 (Exploration 6-6), 316 (Exploration 6-8)	Adequate coverage
	b. Understand that if a scale factor describes how corresponding lengths in two similar objects are related, then the square of the scale factor describes how corresponding areas are related, and the cube of the scale factor describes how corresponding volumes are related.	SE 382-385	Adequate coverage.
	c. Select appropriate two and three dimensional shapes to model real-world objects and solve a variety of problems involving surface areas and volumes of cylinders and prisms.	SE 308-311, 317-319, 382-385, 743, 745	Good coverage.
Standard V: Students will draw conclusions using concepts of probability and statistics after collecting, organizing, and analyzing a data set. **Percentage of coverage for Standard V: 80%**			
Objectives	**Indicators**	**If covered, appropriate page #'s**	**Comments on coverage**
5.1 Formulate and answer questions by collecting, organizing, and analyzing data.	**a.** Collect, organize, display, and interpret data using graphical representations, including box plots and histograms.	SE 179-183, 196-207, 738-739	Adequate coverage.

Standard V: Students will draw conclusions using concepts of probability and statistics after collecting, organizing, and analyzing a data set.**(Cont.)**

Objectives	Indicators	If covered, appropriate page #'s		Comments on coverage
5.1 Formulate and answer questions by collecting, organizing, and analyzing data. (Cont.)	**b.** Describe the correspondence between data sets and their graphical representations, especially histograms, stem and leaf plots, box plots and scatter plots.	SE TE	179-183, 188-192, 196-203, 204-207, 738-739 179, 180, 188, 190, 196, 197, 200, 201	Adequate coverage
	c. Describe how an individual data point may affect the measures of central tendency.	SE	184-187, 738	Adequate coverage.
	d. Compare relative advantages and disadvantages in using various measures of central tendency.	SE	184-187, 738	Good coverage.
	e. Make and defend conjectures formed from analyzing a data set or graphical representation.	SE	196-203, 204-207, 210-211, 216, 738	Coverage is minimal, but okay. See p. 198; #'s 3, 6 and p. 199; #9
5.2 Compare experimental and theoretical probability and use probability to make appropriate predictions.	**a.** Represent the theoretical probability of an event where all outcomes are equally likely as the fraction of outcomes in which the event occurs.	SE	446-450, 462-466, 748-749	Adequate coverage.
	b. Recognize that results of an experiment more closely approximate the actual or theoretical probability of an event as the number of trials increases.	SE TE	451-452 451-452	Adequate coverage.
	c. Calculate the probability and odds of an event mathematically using models and the Fundamental Counting Principle.	SE	456-459, 467-470, 482-485, 749	Adequate coverage.

Standard V: Students will draw conclusions using concepts of probability and statistics after collecting, organizing, and analyzing a data set.**(Cont.)**

Objectives	Indicators	If covered, appropriate page #'s	Comments on coverage
5.2 Compare experimental and theoretical probability and use probability to make appropriate predictions. (Cont.)	**d.** Make approximate predictions using theoretical probability and proportions.	SE 462-466, 749	Citations of theoretical probability. Predictions are not covered
	e. Recognize that the sum of the probability of an event and the probability of its complement is equal to one.	SE 446-450, 748	Coverage adequate. Term "complement" not used, but concept of sum of probabilities must equal 1 is covered adequately.

SE – Student Edition
TE – Teacher Edition